



Atty. Dkt. No. 023228-0109  
IFW

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Steele et al.

Title: WAFER INSPECTION SYSTEM

Appl. No.: 10/771,628

Filing Date: 02/03/2004

Examiner:

Art Unit: 2812

**CERTIFICATE OF MAILING**  
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below.

JORIE JOHNSON

(Printed Name)

Jorie Johnson

(Signature)

OCTOBER 22, 2004

(Date of Deposit)

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §1.56**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document, except as noted below, is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The USPTO has waived the requirement under 37 CFR 1.98(a)(2)(i) to submit copies of U.S. patents and U.S. patent application publications when citing and submitting an Information Disclosure Statements in a patent application filed after June 30, 2003 and in an international application that has entered the national stage under 37 USC §371 after June 30, 2003. Accordingly, copies of these types of documents are not being supplied in connection with this application. Reference is being made to OG Notice dated August 5, 2003, *Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003*.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

**TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits, and within three (3) months of the mailing date of the foreign search report.

**RELEVANCE OF EACH DOCUMENT**

Cite Nos. A61, and A64-A72 listed on the attached PTO/SB/08 were cited as being relevant during the prosecution of the corresponding International application. A copy of the International Search Report is attached setting forth the portion of each document considered relevant by the examiner. An English-language counterpart of the foreign-language document has not been provided, but an English-language Abstract accompanies such document. The absence of a translation or an English-language counterpart document does not relieve the PTO from its duty to consider any submitted document (37 CFR §1.98 and MPEP§609).

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

**STATEMENT**

The undersigned hereby states in accordance with 37 CFR §1.97(e)(1) Cite Nos. A61, and A64-A72 listed on the attached PTO/SB/08 were first cited in any communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to filing of this Statement.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1450. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1450.

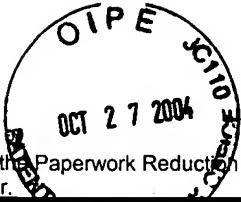
Respectfully submitted,

Date Oct 22, 2004

By M.-D. Rechtin

FOLEY & LARDNER LLP  
Customer Number: 27433  
Telephone: (312) 832-4586  
Facsimile: (312) 832-4700

Michael D. Rechtin  
Attorney for Applicant  
Registration No. 30,128



MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449B/PTO

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

Date Submitted: October 22, 2004

(use as many sheets as necessary)

Sheet 1 of 3

## Complete if Known

Application Number	10/771,628
Filing Date	February 3, 2004
First Named Inventor	M. Brandon Steele
Group Art Unit	2812
Examiner Name	

Attorney Docket Number 023228-0109

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
A1	2002/0140564	A1		Danyluk et al.	10-03-2002	
A2	2002/0186036	A1		Smith	12-12-2002	
A3	2003/0129776	A1		Eom et al.	07-10-2003	
A4	2003/0175945	A1		Thompson et al.	09-18-2003	
A5	2004/0029131	A1		Thompson et al.	02-12-2004	
A6	2004/0057497	A1		Lagowski et al.	03-25-2004	
A7	4,166,974	A1		Vermeers	09-04-1979	
A8	4,295,092	A1		Okamura	10-13-1981	
A9	4,481,616	A1		Matey	11-06-1984	
A10	4,973,910	A1		Wilson	11-27-1990	
A11	5,087,533	A1		Brown	02-11-1992	
A12	5,136,247	A1		Hansen	08-04-1992	
A13	5,214,389	A1		Cao et al.	05-25-1993	
A14	5,217,907	A1		Bulucea et al.	06-08-1993	
A15	5,218,362	A1		Mayes et al.	06-08-1993	
A16	5,270,664	A1		McMurtry et al.	12-14-1993	
A17	5,272,443	A1		Winchip et al.	12-21-1993	
A18	5,278,407	A1		Ikebe et al.	01-11-1994	
A19	5,293,131	A1		Semones et al.	03-08-1994	
A20	5,315,259	A1		Jostlein	05-24-1994	
A21	5,369,370	A1		Stratmann et al.	11-29-1994	
A22	5,381,101	A1		Bloom et al.	01-10-1995	
A23	5,460,684	A1		Saeki et al.	10-24-1995	
A24	5,517,123	A1		Zhao et al.	05-1996	
A25	5,583,443	A1		McMurtry et al.	12-18-1996	
A26	5,723,980	A1		Haase et al.	03-03-1998	
A27	5,723,981	A1		Hellemans et al.	03-03-1998	
A28	5,773,989	A1		Edelman et al.	06-30-1998	
A29	5,974,869	A1		Danyluk et al.	11-02-1999	
A30	5,977,788	A1		Lagowski	11-02-1999	
A31	6,011,404	A1		Ma et al.	01-04-2000	
A32	6,037,797	A1		Lagowski et al.	03-14-2000	
A33	6,091,248	A1		Hellemans et al.	07-19-2000	
A34	6,094,971	A1		Edwards et al.	08-01-2000	
A35	6,097,196	A1		Verkuil et al.	08-01-2000	
A36	6,114,865	A1		Lagowski et al.	09-05-2000	
A37	6,127,289	A1		Debusk	10-03-2000	
A38	6,139,759	A1		Doezema et al.	10-31-2000	

Examiner Signature

Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Application Number</b>	10/771,628
Date Submitted: October 22, 2004				<b>Filing Date</b>	February 3, 2004
(use as many sheets as necessary)				<b>First Named Inventor</b>	M. Brandon Steele
Sheet	2	of	3	<b>Group Art Unit</b>	2812
				<b>Examiner Name</b>	
				<b>Attorney Docket Number</b>	023228-0109

## **U.S. PATENT DOCUMENTS**

		U.S. Patent Document			
A39	6,198,300		Doezema et al.	03-06-2001	
A40	6,201,401		Hellemans et al.	03-13-2001	
A41	6,232,134		Farber et al.	05-15-2001	
A42	6,255,128		Chacon et al.	07-03-2001	
A43	6,265,890		Chacon et al.	07-24-2001	
A44	6,517,669		Chapman	02-11-2003	
A45	6,538,462		Lagowski et al.	03-25-2003	
A46	6,597,193		Lagowski et al.	07-22-2003	
A47	6,664,546		McCord et al.	12-16-2003	
A48	6,664,800		Chacon et al.	12-16-2003	
A49	6,680,621		Savtchouk et al.	01-20-2004	
A50	6,717,413		Danyluk et al.	04-06-2004	
A51	6,011,404	A1	Ma et al.	01-04-2000	
A52	6,520,839	A1	Gonzalez-Martin et al.	02-18-2003	
A53	6,551,972	B1	Lei et al.	04-22-2003	
A54	2003/0052374	A1	Lee et al.	03-20-2003	
A55	2003/0139838	A1	Marella	07-24-2003	
A56	2003/0164942	A1	Take	09-04-2003	
A57	2004/0058620	A1	Gotkis et al.	03-25-2004	
A58	2004/0105093	A1	Hamamatsu et al.	06-03-2004	
A59	2004/0134515	A1	Castrucci	07-15-2004	
A60	6,717,413		Danyluk et al.	04-06-2004	

## **FOREIGN PATENT DOCUMENTS**

Examiner Signature		Date Considered	
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				<b>Group Art Unit</b>	2812
				<b>Examiner Name</b>	
Sheet	3	of	3	Attorney Docket Number	023228-0109

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	A63	B SCRUTON and B.H. BLOTT, A High Resolution Probe for Scanning Electrostatic Potential Profiles Across Surfaces; Journal of Physics E: Scientific Instruments (May 1973), pp. 472-474; Vol. 6, No. 5, Printed in Great Britain.	
	A64	YANO D ET AL: "Nonvibrating contact potential difference probe measurement of a nanometer-scale lubricant on a hard disk", Journal of Tribology, American Society of Mechanical Engineers, New York, NY, US; Vol. 121, No. 4, October 1999, pages 980-983, XP008031092, ISSN: 0742-4787 (pp. 980-981, fig. 4, first ref. on p. 983).	
	A65	CASTALDINI A ET AL: "Surface analyses of polycrystalline and Cz-Si wafers", Solar Energy Materials and Solar Cells, Elsevier Science Publishers, Amsterdam, NL; Vol. 72, No. 1-4, April 2002, pp. 425-432, XP004339790, ISSN: 0927-0248 (whole document).	
	A66	KORACH C S ET AL: "Measurement of perfluoropolyether lubricant thickness on a magnetic disk surface", Applied Physics Letters, American Institute of Physics, New York, NY, US; Vol. 79, No. 5, July 30, 2001, pp. 698-700, XP012029958, ISSN: 0003-6951 (p. 699, left column; fig. 2).	
	A67	YANG Y ET AL: "Kelvin probe study on the perfluoropolyether film on metals", Tribology Letters, 2001, Kluwer Academic/Plenum Publishers, USA, vol. 10, no. 4, pages 211-216, XP009035197, ISSN: 1023-8883 (page 211-page 212).	
	A68	CASTALDINI A ET AL: "Scanning Kelvin probe and surface photovoltage analysis of multicrystalline silicon", Materials Science and Engineering B., Elsevier Sequoia, Lausanne, CH; Vol. 91-92, April 30, 2002, pp. 234-238, XP004355534, ISSN: 0921-5107 (chapters "2.2 Scanning Kelvin probe: and "4.2 Scanning Kelvin probe analyses").	
	A69	LAGEL B ET AL: "A novel detection system for defects and chemical contamination in semiconductors based upon the scanning Kelvin probe", 14 <sup>th</sup> International Vacuum Congress (IVC-14). 10 <sup>th</sup> International Conference on Solid Surfaces (ICS-10). 5 <sup>th</sup> International Conference on Nanometre-Scale Science and Technology (NANO-5). 10 <sup>th</sup> International Conference on Quantitative Surface Analysis; Vol. 433-435, pp. 622-626, XP002292441, Surface Science, August 2, 1999, Elsevier, NL, ISSN: 003906028 (whole document).	
	A70	REN J ET AL: "Scanning Kelvin Microscope: a new method for surface investigations" 8. Arbeitstagung Angewandte Oberflachenanalytik 'AOFA 8' ('Applied Surface Analysis'), Kaiserslautern, DE, September 5-8, 1994; Vol. 353, No. 3-4, pp. 303-306, XP009035181, Fresenius' Journal of Analytical Chemistry, October 1995, Springer-Verlag, DE, ISSN: 0937-0633 (p. 304, right column; fig. 1).	
	A71	BAUMGARTNER H ET AL: "Micro Kelvin probe for local work-function measurements", Review of Scientific Instruments, May 1988, USA; Vol. 59, No. 5, pp. 802-805, XP0022922442, ISSN: 0034-6748 (abstract; fig. 4, chapter "V. Results").	
	A72	DANYLUK S: "Non-vibrating contact potential imaging for semiconductor fabrication", Semicon West 2003, 'Online!, July 14, 2003, pp. 1-15, XP002292443, retrieved from the internet: , URL: <a href="http://dom.semi.org/web/wFiles.nsf/Lookup/TIS18_QceptTechnologiesInc/\$file/TIS18%20QceptTechnologiesInc.Alternate.pdf">http://dom.semi.org/web/wFiles.nsf/Lookup/TIS18_QceptTechnologiesInc/\$file/TIS18%20QceptTechnologiesInc.Alternate.pdf</a> . 'retrieved on August 13, 2004 (whole document).	

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